REMARKS

Claims 1, 3, 4, 11, 18, 21 and 23 are under examination and have been rejected. Applicants have canceled claim 23. Applicant acknowledges that certain grounds of objection/rejection have been withdrawn or mooted. The present response addresses on the remaining grounds of rejection.

Rejection Under 35 U.S.C. §112, First Paragraph

Claims 1, 3, 4, 11 and 21 have been rejected under 35 U.S.C. 112, ¶1, for non-enablement.

The Examiner has maintained the rejection of claims 1, 3, 4 and 21 for lack of enablement on grounds that there is no showing of variability of the polypeptide in affording protection against S. pneumoniae.

In response, Applicant has amended claim 1 to recite that the immunogenic polypeptide elicits production of an antibody that binds to the polypeptide having the amino acid sequence of SEQ ID NO: 8. Such limitation replaces the limitation for binding to S. pneumoniae and is specifically supported in the application at page 13, lines 24-30, where it is stated that a polypeptide of the invention, when administered to a mammal, will elicit production of an antibody that binds the native polypeptide.

Claim 21 has been amended to recite use of immunogenic fragments, all of which comprise amino acids 650-773 of SEQ ID NO: 8 but not limited to said sequence. Thus, these fragments are not anticipated by Choi et al because they contain additional sequence material. In addition, claim 21 is now an independent claim.

Claim 11 has also been amended to delete reliance on claim 23, which was canceled.

The Examiner maintained the rejection of claim 1 as to dependency from claims 1, 3 and 23, arguing that there is no showing that an immunogenic fragment of SEQ ID NO: 8 is able to elicit protective antibodies in a mammal against S. pneumoniae.

In response, Applicants direct the Examiner's attention to the application, at page 12, lines 17-21, where the fragment of amino acids 657-750 of Sp130 (SEQ ID NO: 8) is identified as showing protection of mice against S. pneumonia.

In addition, Applicants have amended claim 21 to recite a vaccine comprising fragments of SEQ ID NO: 8 as an independent claim. Applicants note that all of the recited fragments comprise amino acids 650-773 of SEQ ID NO: 8 and therefor are expected to possess protective activity.

Applicants believe that these amendments remove this ground of rejection.

Rejection Under 35 U.S.C. §112, First Paragraph

Claims 1, 3 and 11 were rejected under 35 U.S.C. §112, first paragraph, as reciting new matter.

The Examiner contends that claim 1 recites new matter in that it recites a percent identity of at least 80%. Applicants respond that this is not new matter in that claim 1, as originally filed, was directed to 65% percent identity and original claim 2 was dependent from claim 1 and recited 80%. Applicants have simply canceled claim 2 and inserted the 80% limitation into claim 1. This is not new matter.

The Examiner has rejected claim 3 as containing new matter in that it recites a percent identity of at least 95%. In response, Applicants direct the Examiner's attention to originally filed claim 3, which recited 95% identity. Consequently, this cannot present new matter.

Applicants' direction of the Examiner to the indicated portions of the specification were for the purpose of supporting the additional limitation of eliciting an antibody against S. pneumoniae and were not intended to support percent identities since these were already in the claim set originally filed.

In addition, claim 1 has been amended to recite that the polypeptide elicits an antibody that binds to the native polypeptide (i.e., SP130 or SEQ ID NO: 8). (see application at page 13, lines 24-30). Consequently, it is readily determined which polypeptides within claim 1 are able to meet the claim limitations since binding to an antibody that binds the polypeptide of SEQ ID NO: 8 is readily determined and such polypeptide will have the intended activity. Because this limitation is fully supported in the specification no new matter has been added. In addition, because the elicited antibody must bind to the sequence of SEQ ID NO: 8 rather than just to S. pneumoniae, this limitation if believed to be narrower than the one it replaces but is fully contained therein (since an antibody that binds SEQ ID NO: 8 must bind S. pneumoniae but the opposite is not necessarily true) so that no claim broadening has occurred.

In view of the foregoing amendments, Applicants believe that this ground of rejection has been overcome.

Rejection Under 35 U.S.C. §112, Second Paragraph

Claims 18 and 21 were rejected under 35 U.S.C. 112, ¶2, as indefinite.

In response, claim 21 has been canceled.

Claim 18 has been amended to recite a polypeptide comprising the amino acid sequence of SEQ ID NO: 8 without recitation of fragments. Applicants believe that such a claim is sufficiently definite.

Applicants believe that these amendments overcome the indicated rejection.

Rejection Under 35 U.S.C. §102

Claims 11, 18 and 23 were rejected under 35 U.S.C. 102(b) as anticipated by Choi et al (WO 98/18930).

In response, claim 23 has been canceled.

Claim 18 has been amended to recite only use of a polypeptide comprising SEQ ID NO: 8, which is not anticipated by any of the sequences of the reference.

Claim 11 has been amended to delete recitation of claim 23.

In view of these amendments, Applicants believe that the cited prior art has been overcome and request that allowance of the claims be re-considered.

No fee is believed to be due in filing this response. If any additional fee is due, the Commissioner is authorized to charge any and all such fees to Deposit Account No. 03-0678.

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Respectfully submitted,

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